

Notice of Allowability

Application No.

10/022,708

Applicant(s)

YOSHIHARA ET AL.

Examiner

Art Unit

Negussie Worku

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/29/07.
2. ☒ The allowed claim(s) is/are 1-11 and 13-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert J. Depke on September 19, 2007. Agreed to amend claims 1, 6 and 11, as follows:

At line 2, 7, 8 and 9 of claim 1, delete or cancel "sensor" insert "line sensors" between "plurality of" and "devices"; and line 7

In claim 6 line 2, 3, 7, 8, 9, 10 and 11, delete or cancel "sensors" insert "line sensor" between "a plurality of" and "devices".

In claim 11, line 4, 9, 11 and 12 delete or cancel "sensor" insert "line sensors" between "a plurality of" and "devices" and also in the end of the same line 4, delete "sensor" between "each of" and "devices" and insert "line sensors".

In addition, agreed to correct Figure 4 and 5, which should be designated by a legend such as --Prior Art-- because only that which is old is illustrated, and therefore, figure 4 and 5, labeled as "prior art Figure 4" and "prior art figure 5".

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance: Claims 12 and 16, has been rejected, and claims 1-11 and 13-15 were allowed, as indicated in the previous Office action. In response to the final office action dated May 24, 2007, applicant has submitted an amendment on Aug 29, 2007, on his remarks applicant has indicted that the previously rejected claims 12 and 16, has been cancelled.

Examiner has care fully reviewed the clamed invention, updated the search, and the pending claims 1-11, 13-15, allowed, for the reasons given below:

With regard to claims 1-15, specifically claim 1, is allowed for the reason the prior art searched and of record or cited, neither anticipates not suggests the claimed subject matter, wherein a transferring signal charges read-out from each pixel of the line of pixels; and wherein a time in which it takes to read-out signal charges from each pixel in the pixel line and transfer the charges to one end of the charge-transfer part is different for at least one of said groups of sensor devices out of said plurality of groups of sensor devices; and driving means which, during a read-out period of a first group of sensor devices, stops charge-transfer driving of the signal charge of a second group of sensor devices.

With regard to claims 6-10 and 14, specifically claim 6, is allowed for the reason the prior art searched and of record or cited, neither anticipates not suggests the claimed subject matter, the image sensing device comprising a plurality of groups of

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sensor devices, each of the group of sensor devices comprises at least one line of pixels and at least one charge-transfer part for further transferring a signal charges read-out from each pixel of the line of pixels, wherein a time in which it takes to read-out signal charges from each pixel in the pixel line and transfer the charges to one end of the charge-transfer part is different for at least one of said groups of sensor devices out of said plurality of groups of sensor devices the driving method comprises stopping transfer driving of the signal charge of a second group of sensor devices during a read-out period of a first group of sensor devices, and therefore, distinction was patentably clear between the prior art and the claimed invention.

With regard to claims 11 and 15, specifically claim 11, is allowed for the reason the prior art searched and of record or cited, neither anticipates nor suggests: a plurality of groups of sensor devices, each of the group of sensor devices comprises a line of pixels and a charge-transfer part for further transferring signal charges read-out from each pixel of the line of pixels; and wherein a time in which it takes to read-out signal charges from each pixel in the pixel line and transfer the charges to one end of the charge-transfer part is different for at least one of said groups of sensor devices out of said plurality of groups of sensor devices; and driving means which, during a read-out period of a first group of sensor devices, stops charge-transfer driving of the signal charge of a second group of sensor devices. Therefore, distinction was patentably clear between the prior arts and the claimed invention.

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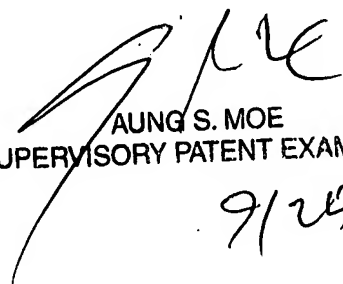
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 571-272-7472. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on 571-272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Negussie Worku
09/19/07



AUNG S. MOE
SUPERVISORY PATENT EXAMINER
9/25/07